



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/GB97/01659 <b>(22) International Filing Date:</b> 19 June 1997 (19.06.97)  <b>(30) Priority Data:</b> 9612829.3                      19 June 1996 (19.06.96)                      GB  <b>(71) Applicant (for all designated States except US):</b> UNIVERSITY COLLEGE LONDON [GB/GB]; Gower Street, London WC1E 6BT (GB).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> CAMPOS-ROSA, Joaquin [ES/ES]; Avenida de Cervantes, 10, 7° D, E-18008 Granada (ES). DUNN, Philip, Michael [GB/GB]; 133 Knaves Hill, Linslade, Leighton Buzzard, Bedfordshire LU7 7SL (GB). GALANAKIS, Dimitrios [GR/GR]; 12 Olympou, 751 Panorama, GR-552 36 Thessaloniki (GR). GANELLIN, Charon, Robin [GB/GB]; Kinwood, Briary Wood End, Welwyn, Hertfordshire AL6 0TD (GB). JENKINSON, Donald, Hugh [IE/GB]; 35 Wood Vale, Muswell Hill, London N10 3DJ (GB). YANG, Donglai [CN/GB]; 49 Linthorpe Road, London N16 5QT (GB). CHEN, Jianqing [CN/CA]; 213 Strathmore Boulevard, Toronto, Ontario M4J 1P4 (CA).		<b>(74) Agents:</b> PAGET, Hugh, C., E. et al.; Mewburn Ellis, York House, 23 Kingsway, London WC2B 6HP (GB).  <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
<b>(54) Title:</b> POTASSIUM CHANNEL BLOCKERS		
<b>(57) Abstract</b>		
<p>A series of compounds for blocking calcium activated potassium channels in rat sympathetic neurones and other mammalian cells, and a method for producing them. These compounds with general formulae (I) and (II), where A and B are spacing groups of 3 to 15 carbon atoms Q<sup>-</sup> is the conjugate base of an acid, R<sup>1</sup> and R<sup>4</sup> are for example (a), R<sup>2</sup> and R<sup>3</sup> are for example H, and X is for example NH, exhibit a high potency and are expected to show selectivity between different channel types. The compounds may be useful in the treatment of a number of disorders that are associated with the activity of calcium activated potassium channels, e.g. myotonic muscular dystrophy, gastrointestinal dysmotilities, memory disorders, cancers, narcolepsy and ethanol-induced narcosis. The compounds may also be useful as antibacterial agents.</p>		
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>(I)</p> </div> <div style="text-align: center;"> <p>(II)</p> </div> </div> <div style="text-align: center; margin-top: 20px;"> <p>(a)</p> </div>		